

Senghani, Dinesh

From: Robinson, Jeffrey
Sent: Thursday, June 26, 2014 12:17 PM
To: Senghani, Dinesh; Mohr, Ashley
Subject: FW: EPA Review Comments. Permit No. 2305-AOP-R0 for Big River Steel LLC.
Attachments: FV_ROC-Big River Steel TV_080813.docx

From: Chang, Allen
Sent: Thursday, August 08, 2013 9:08 AM
To: hutchings@adeq.state.ar.us
Cc: Robinson, Jeffrey; Rheaume, Thomas
Subject: EPA Review Comments. Permit No. 2305-AOP-R0 for Big River Steel LLC.

Mr. Hutchings,

Attached is EPA review of the Draft PSD/TV Permit for Big River Steel LLC. Please let me know if you have questions regarding my comments, please call me at 214-665-7541 or email me, we can discuss it. Have a great day.

Allen Chang,

RECORD OF COMMUNICATION

August 8, 2013

To: Shawn Hutchings
Air Permits Division
Arkansas Department of Environmental Quality

From: Allen Chang
Air Permits Section (6PD-R)
Multimedia Planning and Permitting Division

RE: TV/PSD Permit for Big River Steel LLC.
Permit No. 2305-AOP-R0, AFIN: 47-00991

Summary of Communication

We have completed review of the draft title TV/PSD permit, #2305-AOP-R0 for Big River Steel LLC (BRS), located at Mississippi County, AR. We received it in our office on June 26, 2013. Our comments identify a number of concerns that we request that ADEQ address prior to issuance of the final permit. We look forward to working with ADEQ to resolve the issues identified in our comments and to ensure that the draft permit is consistent with the requirements of the Arkansas Regulations. Please send your response electronically through email for record keeping purposes. If you have any questions, please contact Allen Chang at 214-665-7541.

Statement of Basis

1. Page 5 of 7, Section 14, TESTING REQUIREMENTS: No testing requirements information regarding for process related to annealing process. (SNs-39, 51, 58, 60, 53, 54-56) Please explain how ADEQ would verify those sources' compliance with imposed emission limit without testing the source.

Draft TV/PSD Permit

2. Page 46, Specific Condition #1, the emission rates table list GHG emissions of "121781 tpy". Please be specific what GHG means (CO_{2e} or CO₂). Specific Condition 26 imposed stack testing requirement for CO₂. If "121781" is for CO_{2e}, then permitting authority should explain how to calculate GHG emission rates from CO₂ data.
3. Page 48, Specific Condition #3, it states, "The permittee shall not exceed the emission rates set forth in the following table. Compliance with these emission limits shall be demonstrated by compliance with Conditions 6 and 13-25 and 31 through 37."

Source	Pollutant	lb/hr	tpy
SN-01	Arsenic	0.002	0.006
	Cadmium	0.002	0.005

	Manganese	0.08	0.3
	Mercury	0.03	0.1
SN-02	Arsenic	0.002	0.006
	Cadmium	0.002	0.005
	Manganese	0.08	0.3
	Mercury	0.03	0.1

After reviewed the above stated Specific Conditions, the reviewer does not find the appropriated instructions that would lead to verify lb/hr and tpy emission rates in the Table. Please explain.

- Page 47, Specific Condition 2, BACT Analysis Summary, the Opacity for EMFs from SN-01 and SN-02 states, “3% as a 6 minute average 6% from melt shop”. Does it mean that “3% as a 6 minute average” is opacity for SN-01 EMF and “6% from melt shop which includes SN-01, SN-02 and SN-03”? Please clarify the phrase.

The same question applies to next row opacity BACT limit for SN-01 and SN-02 LMFs.

- Page 54, Specific Conditions # 29 and #30, the reviewer found three (3) places which the following sentence blocked the original texts. **“Error! Reference source found.”** Please make appropriate correction.
- Page 55, Specific Condition 36, it states, “The permittee must not discharge from SN-01 any gasses from an EAF witch exhibit a 6% opacity or greater or contain in excess of 0.0052 gr/dscf. [Regulation 19, §19.304 and 40 CFR Part 63, Subpart YYYYYY]”

BRS proposed the opacity BACT limit for EMFs and LMFs is “3% as a 6 minute average.”. Accordingly, BRS must comply with the more stringent opacity BACT limit of 3% instead of 6% as required by 40 CFR Part 63, § 63.10686.

- Page 70, Melt Shop Natural Gas Sources, Specific Condition 52, it states, “The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific Condition 56 and Plantwide Condition 5...”

Specific Condition 56, it states, “The permittee shall test the sources in the table below for PM_{2.5} and PM₁₀. The test shall be conducted in accordance with Plantwide Condition 3 and EPA ...”

The Plantwide Condition 5 is stated as following,

“The permittee must operate the equipment, control apparatus and emission monitoring equipment within the design limitations. The permittee shall maintain the equipment in good condition at all times. [Regulation 19 §19.303 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]”

The Emission Rates Table listed PM, PM₁₀, PM_{2.5}, SO₂, VOC, CO, NO_x and GHG...etc; please explain why Specific Condition 56 only selects PM₁₀ and PM_{2.5} to be

tested instead all pollutants. Besides, no future testing except the initial testing is scheduled in the Draft Permit.

Since those emission sources are new and subject to various BACT limits, they shall be able to demonstrate compliance with the established BACT limits on continual basis. ADEQ should establish periodic testing to ensure that these sources continue to meet their respective BACT limits. [40 CFR Part 70, §70.6(a)(3)(i)(B)]

8. Page 66, Specific Condition 53, it states,

“The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Plantwide Condition 5...”

Please show correlations between the emission rates and compliance of Plantwide Condition 5. (See Comment #7) ADEQ should establish initial testing and periodic monitoring to ensure sources compliance with respective limits in the Permit.

9. Page 68, Specific Condition 54, it states,

“The permittee shall not exceed the emission rates set forth in the following table. Compliance with this condition will be show compliance with Specific Condition 56 and Plantwide Condition 5.”

Since those emission sources are new and subject to various BACT limits, ADEQ should establish initial testing each emission source, not one from the same kind sources, to verify those BACT limits, and following testing to demonstrate compliance with the established BACT limits on continual basis.

10. Page 71, Specific Condition 57 for Tunnel Furnaces. (SN-20 and SN-21)

Please explain: 1. why emission rates for those two tunnel furnaces are different since each furnace has a combined total heat input of 269 MMBTU/hr; 2. why initial test of these two furnaces only applies to PM_{2.5}, NO_x and CO, instead of testing other pollutants BACT limits including GHG.

11. Page 91, Specific Condition 72, it states,

“The permittee shall test the Boilers SN-22, 26, and 27 for PM_{2.5}, CO, and NO_x emissions. The test shall be conducted in accordance with Plantwide Condition 3...”

Between the initial test and retest 5 year later, we recommend ADEQ establish periodic testing to ensure that the source continues to meet the BACT limit. [40 CFR Part 70, §70.6(a)(3)(i)(B)]

12. Through the permit, BACT limits for sulfur dioxide and nitrogen oxides are on a lb/ton of steel produced. Please clarify what is the time averaging period. (Ex. 3-hour average) Due to 1 hour NAAQS standard for sulfur dioxide and for nitrogen oxides, limits for these pollutants should be on a similar short term basis, (i.e. on a 1 hour basis). If the

time average period is longer than one hour, please make appropriate revision of the time averaging period.

13. The Draft Permit established GHG BACT limits of CO_{2e}, N₂O and CH₄ for those source groups; but no applicable compliance requirements in the Draft Permit which leads to verification of GHG BACT limits on those sources. ADEQ should establish appropriate monitoring and reporting requirements according to 40 CFR Part 98, Subpart Q, Iron and Steel Production.